INTERNATIONAL SEARCH REPORT

International application No.

A CT ACCT	TO ATTONY ON THE TOTAL OF THE T	PCT/JP2004/000227
Int.C	ICATION OF SUBJECT MATTER 1 D01F9/24, C01B31/02, H01M4/96, H01M8/02	
According to I	nternational Patent Classification (IPC) or to both national classification and IPC	
B. FIELDS S	EARCHED	
Minimum docu	mentation searched (classification system followed by classification symbols)	
Int.C	D01F9/20-9/32, C01B31/02, H01M4/86-98, H0: B01J21/00-38/74	1M8/00-8/24,
Documentation	searched other than minimum documentation to the extent that such documents	<u> </u>
		are included in the fields searched
Kokai d	Fitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan To	inan Koho 1994—2004 roku Koho 1996—2004
Electronic data	base consulted during the international search (name of data base and, where pra	
	and, where pra	ecticable, search terms used)
C. DOCUME	NTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevan	t passages Relevant to claim No
X	JP 8-165111 A (Research Development Corp.	of 1-4
Y A	oapan,,	5-8
	25 June, 1996 (25.06.96), Claims; Par. Nos. [0009], [0010]	9,10
	(Family: none)	
•		
X	JP 6-172028 A (Kabushiki Kaisha Tomoekawa	1-4
A	Selsakusho),	5-10
	21 June, 1994 (21.06.94), Claims; Par. No. [0008]	
	(Family: none)	i
X	JP 4-321509 A (Sumitomo Chemical Co., Ltd.), 1-4
A	11 November, 1992 (11 11 92)	5-10
	Claims; Par. Nos. [0014], [0020] (Family: none)	
	(runity: none)	ļ
:		
	·	
× Further do	cuments are listed in the continuation of Box C.	anney
Special cate	ories of cited documents:	
opeciai cate	efining the general state of the art which is not considered date and not in conflict	shed after the international filing date or priori
A" document de		
A" document do to be of parti E" earlier applic	cular relevance the principle or theor	y underlying the invention
document do to be of parties earlier applications date	cular relevance the principle or theory ation or patent but published on or after the international "X" document of particul considered novel or	y underlying the invention ar relevance; the claimed invention cannot be
document do to be of particular application of the document we cited to esta	ation or patent but published on or after the international "X" document of particul considered novel or step when the docum blish the publication date of another situation.	nct will the application but cited to understand y underlying the invention ar relevance; the claimed invention cannot be cannot be considered to involve an inventi- ent is taken alone
A" document do to be of parties earlier application date document we cited to esta special reaso	ation or patent but published on or after the international accomment of particular international accomment of particular internation in the principle or theory and the principle or theory accomment of particular international accommendation in comment of particular international accomment of particular international accommendation accommendati	y underlying the invention ar relevance; the claimed invention cannot be cannot be considered to involve an inventi- ent is taken alone ar relevance; the claimed invention cannot be ye an inventive step when the desired
A" document do to be of parties" earlier application filing date document we cited to esta special reaso O' document rei document pu	ation or patent but published on or after the international hich may throw doubts on priority claim(s) or which is blish the publication date of another citation or other n (as specified) erring to an oral disclosure, use, exhibition or other means blished prior to the international filing date but letter them.	ar relevance; the claimed invention cannot be cannot be considered to involve an invention ear relevance; the claimed invention cannot be cannot be considered to involve an invention ear relevance; the claimed invention cannot be ve an inventive step when the document is
A" document do to be of partie. E" earlier applic filing date document we cited to esta special reaso. D" document rei	cular relevance ation or patent but published on or after the international hich may throw doubts on priority claim(s) or which is blish the publication date of another citation or other in (as specified) erring to an oral disclosure, use, exhibition or other means blished prior to the international filing date but later than	y underlying the invention ar relevance; the claimed invention cannot be cannot be considered to involve an inventi- ent is taken alone ar relevance; the claimed invention cannot be ye an inventive step when the degree
A" document de to be of partie E" earlier applie filing date document we cited to esta special reaso D" document rei document pu the priority d	cular relevance ation or patent but published on or after the international nich may throw doubts on priority claim(s) or which is blish the publication date of another citation or other n (as specified) erring to an oral disclosure, use, exhibition or other means blished prior to the international filing date but later than attend to the international or other means blished prior to the international filing date but later than attend to the international or other means being obvious to a pe document member of	ar relevance; the claimed invention cannot be cannot be cannot be cannot be considered to involve an invention ent is taken alone ar relevance; the claimed invention cannot be ar relevance; the claimed invention cannot be ve an inventive step when the document is a more other such documents, such combinations on skilled in the art
A" document do to be of partie. E" earlier application date document we cited to esta special reaso O" document rei document puthe priority de description.	cular relevance ation or patent but published on or after the international hich may throw doubts on priority claim(s) or which is blish the publication date of another citation or other in (as specified) erring to an oral disclosure, use, exhibition or other means blished prior to the international filing date but later than attend to the international or of the international "X" document of particul considered novel or step when the docum combined with one or being obvious to a pe document member of completion of the international search Date of mailing of the in	ar relevance; the claimed invention cannot be cannot be considered to involve an invention ent is taken alone ar relevance; the claimed invention cannot be ar relevance; the claimed invention cannot be ar inventive step when the document is a more other such documents, such combinations of the same patent family
A" document do to be of partie. E" earlier applie filing date document we cited to esta special reaso O" document rei document puthe priority de to the actual	cular relevance ation or patent but published on or after the international hich may throw doubts on priority claim(s) or which is blish the publication date of another citation or other in (as specified) erring to an oral disclosure, use, exhibition or other means blished prior to the international filing date but later than attend to the international or of the international "X" document of particul considered novel or step when the docum combined with one or being obvious to a pe document member of completion of the international search Date of mailing of the in	ar relevance; the claimed invention cannot be cannot be considered to involve an invention tent is taken alone ar relevance; the claimed invention cannot be ar relevance; the claimed invention cannot be ar inventive step when the document is a more other such documents, such combinations on skilled in the art.
A" document do be of parties E" earlier applie filing date document we cited to esta special reaso O" document puthe priority document puthe priority document reaso ate of the actual	cular relevance ation or patent but published on or after the international inich may throw doubts on priority claim(s) or which is blish the publication date of another citation or other in (as specified) erring to an oral disclosure, use, exhibition or other means blished prior to the international filing date but later than ate claimed "&" document of particul considered novel or step when the document of particul considered to invol combined with one opening obvious to a per ate claimed "&" document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document o	ar relevance; the claimed invention cannot be cannot be considered to involve an invention ent is taken alone ar relevance; the claimed invention cannot be ar relevance; the claimed invention cannot be ar inventive step when the document is a more other such documents, such combinations of the same patent family
A" document do to be of parties" earlier applie filing date document we cited to esta special reaso or document put the priority document with the priority document put the priority document with the priority document with the priority document put the put the priority document put the put the priority document put the put t	cular relevance ation or patent but published on or after the international hich may throw doubts on priority claim(s) or which is blish the publication date of another citation or other h (as specified) erring to an oral disclosure, use, exhibition or other means blished prior to the international filing date but later than attended to involve the principle or theory document of particul considered novel or step when the document of particul considered to involve the published prior to the international filing date but later than attended to international considered novel or step when the document of particul considered to involve the published prior to the international filing date but later than attended to the principle or theory "X" document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document or step when the document of particul considered novel or step when the document	ar relevance; the claimed invention cannot be cannot be considered to involve an inventivent is taken alone ar relevance; the claimed invention cannot be ar relevance; the claimed invention cannot be ar relevance; the claimed invention cannot be ve an inventive step when the document is a more other such documents, such combinations on skilled in the art. The same patent family
A" document do to be of parties E" earlier application of filing date L" document we cited to esta special reaso O" document put document put the priority document put the p	cular relevance ation or patent but published on or after the international inich may throw doubts on priority claim(s) or which is blish the publication date of another citation or other in (as specified) erring to an oral disclosure, use, exhibition or other means blished prior to the international filing date but later than ate claimed "&" document of particul considered novel or step when the document of particul considered to invol combined with one opening obvious to a per ate claimed "&" document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document of particul considered novel or step when the document o	ar relevance; the claimed invention cannot be cannot be considered to involve an inventivent is taken alone ar relevance; the claimed invention cannot be ar relevance; the claimed invention cannot be ar relevance; the claimed invention cannot be ve an inventive step when the document is a more other such documents, such combinations on skilled in the art. The same patent family

INTERNATIONAL SEARCH REPORT

International application No. PCT/JP2004/000227

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim N
Y	GB 1547162 A (SHELL INTERNATIONAL RESEARCH MAATS CHAPPII B.V.), 06 June, 1979 (06.06.79), Claim 17; examples & SE 7608262 A & NL 7608012 A & JP 52-13490 A & DE 2632623 A & FR 2318680 A & CA 1084477 A	5-8
Y	JP 4-141233 A (Stonehart Associates Inc.), 14 May, 1992 (14.05.92), Claims (Family: none)	5-8
A	WO 95/021465 A1 (THE DOW CHEMICAL CO.), 10 August, 1995 (10.08.95), Claims & EP 748523 A	5-10
·		
		·
-		

国際出願番号 PCT/JP2004/000227

発明の属する分野の分類(国際特許分類(IPC))

Int.Cl' D01F9/24, C01B31/02, H01M4/96, H01M8/02

調査を行った分野

調査を行った最小限資料(国際特許分類(IPC))

Int.C1' D01F9/20-9/32, C01B31/02, H01M4/86-98, H01M8/00-8/24, B01J21/00-38/74

最小限資料以外の資料で調査を行った分野に含まれるもの

日本国実用新案公報

1926-1996年

日本国公開実用新案公報 1971-2004年

日本国登録実用新案公報 1994-2004年

日本国実用新案登録公報 1996-2004年

国際調査で使用した電子データベース(データベースの名称、調査に使用した用語)

C 88***********************************		
C. 関連する	ると認められる文献	:
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
х	JP 8-165111 A (新技術事業団), 1996.06. 25, 特許請求の範囲, 第【0009】【0010】欄	1-4
Y A	(ファミリーなし)	5-8 9, 10
Х	JP 6-172028 A (株式会社巴川製作所), 1994. 06.21, 特許請求の範囲, 第【0008】欄 (ファミリーなし)	1-4
A		5 — 1 .0

区欄の続きにも文献が列挙されている。

パテントファミリーに関する別紙を参照。

* 引用文献のカテゴリー

- 「A」特に関連のある文献ではなく、一般的技術水準を示す「T」国際出願日又は優先日後に公表された文献であって
- 「E」国際出願日前の出願または特許であるが、国際出願日 以後に公表されたもの
- 「L」優先権主張に疑義を提起する文献又は他の文献の発行 日若しくは他の特別な理由を確立するために引用する 文献 (理由を付す)
- 「Q」口頭による開示、使用、展示等に言及する文献
- 「P」国際出願日前で、かつ優先権の主張の基礎となる出願

の日の後に公表された文献

- 出願と矛盾するものではなく、発明の原理又は理論 の理解のために引用するもの
- 「X」特に関連のある文献であって、当該文献のみで発明 の新規性又は進歩性がないと考えられるもの
- 「Y」特に関連のある文献であって、当該文献と他の1以 上の文献との、当業者にとって自明である組合せに よって進歩性がないと考えられるもの
- 「&」同一パテントファミリー文献

国際調査を完了した日

12.04.2004

国際調査報告の発送日

11. 5. 2004

国際調査機関の名称及びあて先

日本国特許庁(ISA/JP) 郵便番号100-8915 東京都千代田区霞が関三丁目4番3号 特許庁審査官(権限のある職員) 澤村 茂実

4 S 9158

電話番号 03-3581-1101 内線 3474



国際出願番号 PCT/JP2004/000227

	HIMELES AV TOTY J. 20		
C (続き). 引用文献の	関連すると認められる文献		
カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号	
X	JP 4-321509 A(住友化学工業株式会社), 199 2.11.11,特許請求の範囲,第【0014】【0020】欄 (ファミリーなし)	1-4	
A		5-10	
Y	GB 1547162 A (SHELL INTERNATIONAL RESEARCH MAATS CHAPPII B.V.), 1979.06.06, Claim.17, Example	5 — 8	
	&SE 7608262 A &NL 7608012 A &JP 52-13490 A &DE 2632623 A &FR 2318680 A &CA 1084477 A		
Y .	JP 4-141233 A (ストンハルト・アソシエーツ・インコーポレーテッド), 1992.05.14, 特許請求の範囲, (ファミリーなし)	5 — 8	
A .	WO 95/021465 A1 (THE DOW CHEMICAL COMPANY), 1995.08.10, Claims &EP 748523 A	5-10	
	·		
·			
	·	·	